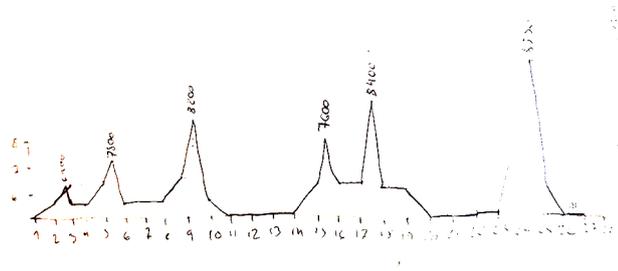


TESTING OURSELVES

Kilian Jornet and Emelie Forsberg's express acclimatization





I want to share how I approached my Cho Oyu and Everest preparations and acclimatization programs during my expedition in 2017.

Most of what I did was what many alpinists have been doing for years, and I have been trying and adjusting the last 5 years in Himalaya. We placed a strong emphasis on traveling light, not spending nights sleeping above base camp, and returning to lower elevations as soon as possible.

Also I used a pre-acclimatization one month before departure, I believe it helps to do shorter expeditions. I believe it helps to do shorter expeditions. Climbers without a big ability to recover well from hard training will probably not have the same results with the same approach I used.

PRE TRAINING

First of all I want to explain how important it is to have a high physical capacity to do this acclimatisation and strategy to climb a mountain. This strategy is for athletes who have the capacity to climb easy 2000 or 3000m in altitude and have been following a training routine during years, if not, this can be more dangerous than helpful.

When we were doing this pre-acclimatisation, Emelie and I have been training for years on high intensity, being able to complete run or ski-tours of 100 miles or more than 30 hours without stopping, to do several +25h weeks of hard training etc. It is important to understand that the body should be adapted to the routine of training hard and recover fast to accept this acclimatisation and strategy. I think a minimum yearly training of 700h to 1200h is needed to consider good fitness for that.

PRE ACCLIMATISATION Phase

30 days before leaving to Himalaya sleeping at Hypoxia tent:
week 1 starting at 4000m altitude equivalent week 4 to 5800m
During those weeks we were also training in simulated altitude:

1. Morning: long training outside (2 to 15h per day skimountaineering and alpinism)
2. Afternoon 6 days/week: 40' to 1h: at 6000m treadmill - 10min warm up (10km/h) then intervals 5' slow (10km/h flat) 5' fast (12-15km/h) OR 10km/h at 15% incline. The last week I also did this with a 6kg backpack.

Emelie was not doing intensity but focused on constant running up to 10km/h.

After that we were going to the Alps, sleeping at Plateau Rosa (3500m) and training around 4000m (Completed the Mezzalama Race)

Total of +/- 300 hours at altitude (240h in tent-home + 60h in the Alps). Simulated altitude (Hipopoxico tent - mask) was working well, but only because we spend this amount of hours in "altitude" and the protocols in the workouts. I think it can be similar result sleeping and training this protocol at real altitude naturally (Alps - Colorado - Himalayas) with comforts for sleep and eat well.

PRE TRAINING

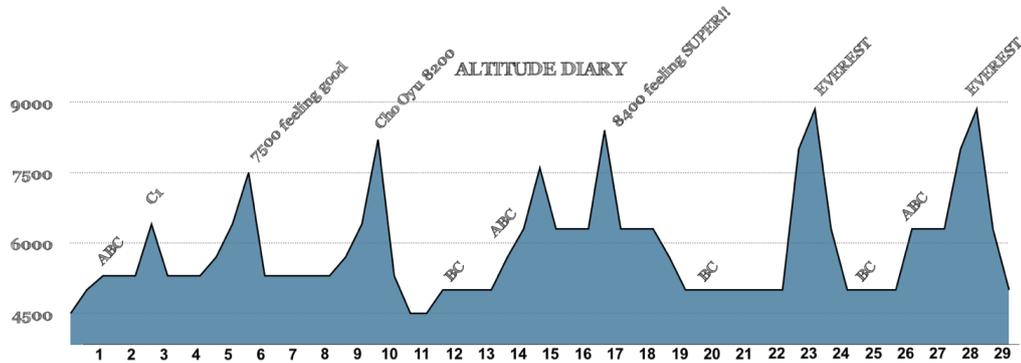
Short travel time was very important. We arranged our logistics to do a fast travel spending only 3 days from Europe to Cho Oyu Base Camp (1-GNV-KTM 2-KTM-Lhasa-Shigatse 3- Shigatse- CBC) We traveled with only one bag with technical gear and clothes. I believe that in this way there is less loss of acclimatisation and not so much fatigue as a result of long travels and spending days in cities.

ON THE MOUNTAIN

- We always slept as low as possible (Maximum ABC-6400m)
- On the mountain for the first 10 days and all the days except the actual ascents we were moving at a really low speed (max 130 bpm - speed you can talk) to not fatigue the cardiovascular system.
- We try to keep to a schedule of 1 rest day for 1 day of activity. Maximum of 2 days of resting following a day of activity.
- Climb at a slow pace the first 2 weeks (max 130ppm) - "you can talk" pace.
- Always climb light and high and always all the way back down on the same day.

PROFILES OF ACCILIMATISATION AND CLIMBING

In Total we stayed only 29 days in the mountains: 11 days on Cho Oyu and 18 days on Everest.



During those time I was 4 times over 8000m:

1. 8200m (day 9 - Cho Oyu)
2. 8500m (day 18 - Everest shoulder)
3. 8850m (day 24- Everest - I spend 20h over 8000 / 10h of those over 8400m) I took with me 2L of water - 2 gels to eat.
4. 8850m (day 28 - Everest - I spend 18h over 8000 / 8h of those over 8400m) 1L of water - 5 gels

RECOVERY POST EXPEDITION

Quick travel back from last summit.

- 28/6 - From summit down to ABC, a short rest, and then that same after noon down to CBC
- 29/6 - 6AM we began to drive from CBC to Lhasa
- 30/6 - Flight leaving Lhasa
- 31/06 - Arrival Norway - evening 30' recovery run
- 1/07 - Start normal training. Feeling normal (as normal as possible after long travel, legs swollen) And from there a normal training week (25h - 15,000m) feeling as usual
- 10/07 - Raced a half marathon and performed well.

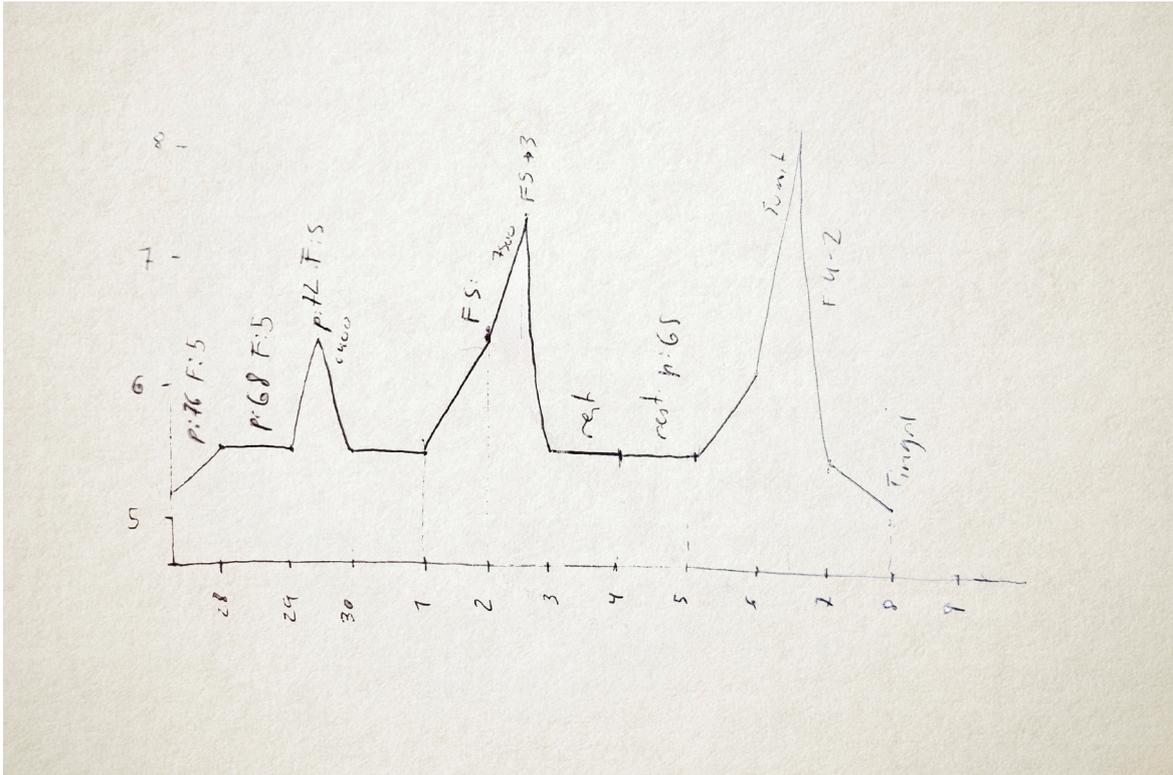
I believe that shorter expeditions have much less the impact on post-expedition performances. I think that this is because during the expedition is not much "rest" time. It is also important not to sleep high and to do regular activity during the expedition. These two points are key to making the recovery much faster.

I also think that to arrive to the expedition in great shape means that when you climb the mountain you don't spend much energy. I was certainly feeling tired on the mountain due to the effort and altitude, but I felt completely recovered the following day back at the Base Camp. All of this means that the expedition does not have a bigger impact on the body than a normal month of training or racing.

DETAILS

Some more detailed information on the mountains.

CHO OYU:



Day 1: CBC - ABC

Day 2: rest ABC

Day 3: ABC - 6400m- ABC

Day 4: rest ABC

Day 5: ABC-6400m and put a tent there.

Day 6: 6400 - we climb up to 7500m, we were feeling good, going up at a speed of 250m/h but we needed to turn around because weather deterioration. back to ABC

Day 7-8: rest at ABC waiting for good weather.

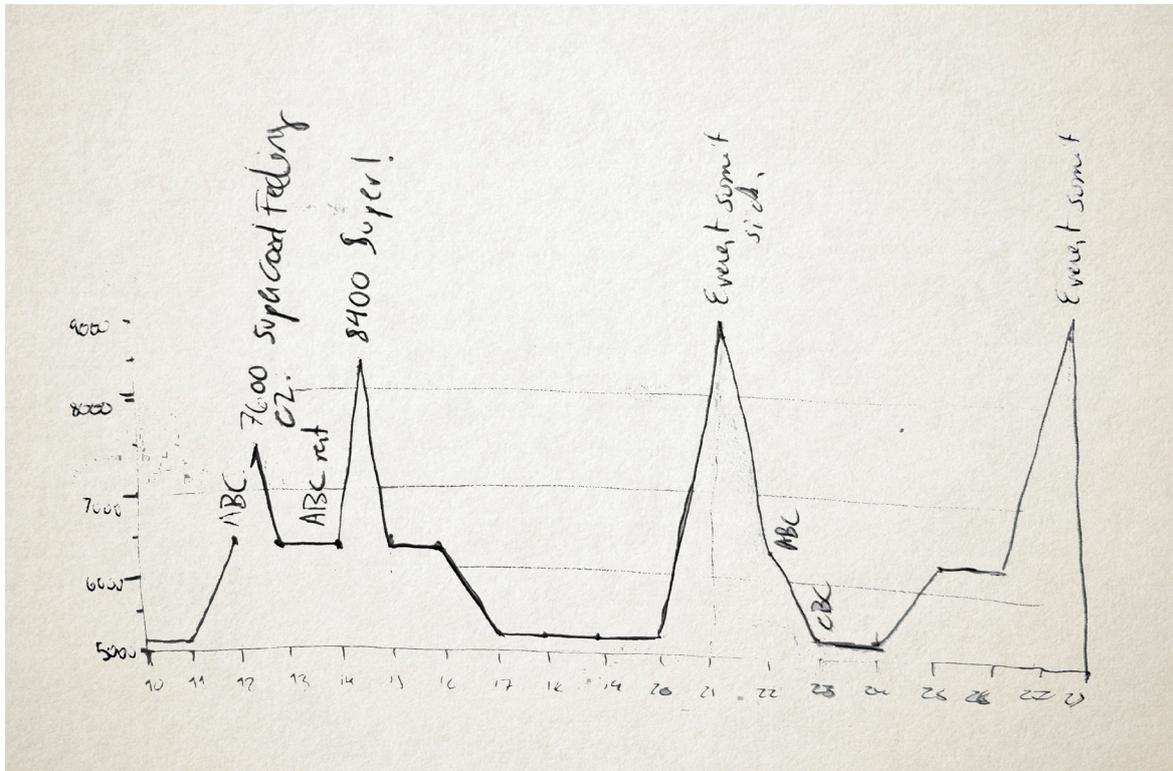
Day 9: ABC- 6400m

Day 10: 6400m - we attacked the summit from Camp One. We left at midnight with very strong winds, during the night it was very cold, we were concerned about our feet and hands getting frostbite. At 7200m we entered a crevasse to protect us from the wind and to wait for the sun to warm everything up. When the sun was up we continued at a good pace and at 11 AM, at 7700m just under the yellow band Emelie decided to turn around.

The bad weather was coming fast and there was no fixed rope on the mountain (There were only 8 climbers on the mountain this spring, so the expedition teams were late fixing ropes, they were fixing between 1 to 2 on this day.) So I was a bit uncertain if I could go down the route safely alone. I continued to summit area in bad weather. I was feeling good up to 7800m, but after that it was really hard up to 8200m. I think that going to 8,000m in less than 2 weeks is possible but the last two-hundred meters are very very hard. I reached the summit (or surroundings, because I was in a big snowfall and fog) and turned around and went down fast. Three hours later I was at Camp 1 where Emelie had taken down our tent, I took the rest of the gear and started down to ABC.
Day 11: ABC - CBC drive to Tingri.



EVEREST:



Day 12: Travel Tingri - Everest Base Camp. Emelie returned home and I changed the valley to Everest where Seb Montaz had just arrived. Our expedition logistics were pretty simple, what also made them very economical. We paid our climbing permit to CTMA (China Tibet Mountain Association) what included our transportation in Tibet. We contracted our Base Camp services with a Nepali company. That allowed us to have one tent in the base camp and one in ABC and a cook and cook-tent in ABC or BC. The cost for that is between \$10.000 and \$15.000 depending on the summit and travels, all costs included (travel, permit, Base Camp services...) It is certainly expensive, but much more accessible than normal expeditions.

Day 13-14 (1-2): Rest at Everest Base Camp.

Day 15 (3): Seb and I climbed to ABC.

Day 16 (4): I climbed from ABC to 7600m. 4h up and down.

Day 17 (5): Rest at ABC.

Day 18 (6): I climbed to 8400m, I was feeling very strong. I climbed from ABC at 6400m to 8400m in 6 hours and back in 9h30 total time. I think that was my strongest moment in the balance between acclimatisation and fatigue (The moment where acclimatisation is good and the fatigue is not too much). It was the 18th day since I had arrived in Tibet.

Day 19 (7): Rest at ABC.

Day 20 (8): We went down to Base Camp at 5000m to rest.

Day 21-22 (9-10): Rest at Base Camp

Day 23 (11): Rest at Base Camp and at 10PM in the evening I started running from Base Camp towards ABC where I took 2h of rest, took all my climbing gear. In my backpack I had a headlamp, a downsuit, down mittens, buff and hat, silk gloves, one ice axe, poles, the climbing overboots with crampons, sun cream, 10 gels and 2L of water and one Go-Pro. I start climb via NNE to Everest. It took me 26h to summit, at midnight. I had gastric problems starting at 7600m and I needed to stop a lot along the way, but it was very interesting to see that it is possible to climb a high summit starting very low (almost 4000m lower) and with not any assistance or gear deposits in the mountain. And for me it was a relief to see that it was possible for me to climb it without supplemental oxygen.

When I was down from the summit my feelings were divided. On one hand I was happy to climb Everest, on the other I was a bit frustrated to be sick and not being able to climb normally.

Day 25: We went to Base Camp.

Day 26: Rest Base Camp

Day 27: Up again to ABC.

Day 28: Rest at ABC

Day 29: I started climbing at 4AM. I wanted to feel good this time with no more gastric problems. During the days before we we took a lot more care about hygiene in the camp. The day was very windy and snowy and so it was not really possible to go fast. This time it took me 17h from ABC to summit. I was not as fast as I would have liked, but it was great to be in the summit again. Knowing that is possible to be this altitude this often and to be able to move "quick" for long time in big mountains was a satisfying lesson. I think the recovery time between the 2 ascents of Everest was a bit to short for me to be fresh. But maybe with 3 or 4 good rest days it would be enough for me to be at 100% again. On the way down from the summit at around 8300m I have a black hole in my memory for around 30'. I don't know why, but I left the ridge and my next memory is down climbing a steep rocky wall. I was not very clear in my mind (I was having small hallucinations but I knew they were hallucinations) but I had a hard time knowing if what I was experiencing was a dream or real. After some more technical sections I realized that I didn't know where I was (1h after leaving the normal route) and I decided to wait for some light to see where I was. I slept there for 1 hour and then I starting thinking clearly again. Looking at my GPS I realised I was in the middle of the north face, close to Norton Couloir, so I traversed and down-climbed to arrive at the Messner crossing to get to the normal route and I continued down to arrive in ABC on the morning of the 28th.

Day 30: When I arrived at ABC from the mountain I took a few hours of rest and then on the same afternoon we hiked down to Base Camp

Day 31: We drove to Lhasa and flew home.

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